



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

MU

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/838,449	04/19/2001	Scott Elliot Axelrod	YOR920000210US2	2286

7590 09/25/2006

Ryan, Mason & Lewis, LLP
Suite 205
1300 Post Road
Fairfield, CT 06430

EXAMINER

STEVENS, THOMAS H

ART UNIT PAPER NUMBER

2123

DATE MAILED: 09/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

DETAILED ACTION

1. Claims 1-7,9-24, 26-40,42-52,54-57, 59 and 60 were examined.

Specification

2. The disclosure is objected to because of the following informalities: element number series 700 is absent from the specification. Appropriate correction is required.

Claim Objections

3. Claims 34 and 47 are objected to because of the following informalities: in claims 37 and 47 the phrases "the best improvement" and "the other word", respectively, might cause antecedent problems. Appropriate correction is required.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 24, 26-33, 35, 36, 38-40,42-50,52,54,55,57,59 and 60 are rejected under 35 U.S.C. 101 because they don't provide a useful, concrete and tangible result.
Suggestion: amend the independent claims in question to reflect "speech recognition".

Allowable Subject Matter

6. Claims 1-7,9-23, 51 and 56 are allowed.

Art Unit: 2123

7. The following is an examiner's statement of reasons for allowance:

While US Patent 5,230,037 (claim 1) teaches method comprising the steps of: creating an evaluation model from at least one evaluation phone; creating a synthesizer model from at least one synthesizer phone; and determining a matrix from the evaluation and synthesizer model; US Patent 4,707,858 teaches said matrix configured for speech recognition; (claim 51) an apparatus comprising: a memory that stores computer-readable code; and a processor operatively coupled to said memory, said processor configured to implement said computer-readable code, said computer-readable code configured to create an evaluation model from at least one evaluation phone; create a synthesizer model from at least one synthesizer and determine a matrix from the evaluation and synthesizer models; none of these references, taken either alone or in combination, with the prior art of record disclose

(claims 1 and 51) "creating a new matrix by subtracting the matrix from an identity matrix, determining an inverse of the new matrix; and determining acoustic confusability by using the inverse of the new matrix"

(claim 15) "A method comprising the steps of : creating an evaluation model from a plurality of evaluation phones, each of the phones corresponding to a first word; creating a synthesizer model from a plurality of synthesizer phones, each of the phones

Art Unit: 2123

corresponding to a second word; creating a product machine from the evaluation model and synthesizer model, the product machine comprising a plurality of transitions and a plurality of states; determining a matrix from the product machine;”

(claim 56) “a step to create a new matrix by subtracting the matrix from an identity matrix, a step to determine an inverse of the new matrix; and a step to determine acoustic confusability by using the inverse of the new matrix”

in combination with the remaining elements and features of the claimed invention. It is for these reasons that the applicants' invention defines over the prior art of record.

8. Claims 24, 26-33, 35, 36, 38-40, 42-50, 52, 54, 55, 57, 59 and 60 are indicated as allowable over the prior art of record.

9. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

10. The following is a statement of reasons for the indication of allowable subject matter: While US Patent 5,806,029 teaches (claim 15) determining acoustic confusability of the first word and the second word by using the matrix, said matrix configured for speech recognition; (claim 46) a method for determining acoustic

Art Unit: 2123

confusability of a word pair, the method comprising the steps of; (claim 60) an article of manufacture for determining acoustic confusability of a word pair, the article of manufacture comprising: a computer-readable medium having computer-readable code means embodied thereon, the computer-readable program code means; US Patent 6,185,530 teaches (claim 24) determining acoustic confusability and for each of a plurality of word pairs; and; determining a metric by using the acoustic confusabilities, wherein step (b) further comprises the step of determining an acoustic perplexity by using the confusabilities; (claim 57) an article of manufacture comprising a computer-readable medium having computer-readable code means embodied thereon, (claim 52) an apparatus comprising: a memory that stores computer-readable code; and a processor operatively coupled to said memory, said processor configured to implement said computer-readable code, said computer-readable code configured to: a) determine acoustic confusability for each of a plurality of word pairs; and b) determine a metric by using the acoustic confusabilities; US Patent 5,790,754 teaches (claim 55) an apparatus comprising: a memory that stores computer-readable code; and a processor operatively coupled to said memory, said processor configured to implement said computer-readable code, said computer-readable code configured to: determining a matrix from the evaluation and synthesizer models; US Patent 4,707,858 teaches (claim 56) an article of manufacture comprising: a computer-readable medium having computer-readable code means embodied thereon, the computer-readable program code means comprising a step to creating an evaluation model from at least one evaluation phone; a

Art Unit: 2123

step to creating a synthesizer model from at least one synthesizer phone; none of these references, taken either alone or in combination, with the prior art of record disclose

(claims 24, 52 and 57) "a plurality of word pairs, wherein step (a) further comprises the steps of, for each of the word pairs: determining an edit distance between each word of the word pair; and determining acoustic confusability from the edit distance;"

(claims 46, 55 and 60) "determining an edit distance between each word pair and an associated alignment; assigning acoustic distance to each aligned phoneme pair; and determining an acoustic confusability by summing acoustic distances"

(claim 52) "the step of determining an acoustic perplexity by using the confusabilities"

in combination with the remaining elements and features of the claimed invention. It is for these reasons that the applicants' invention defines over the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

Correspondence Information

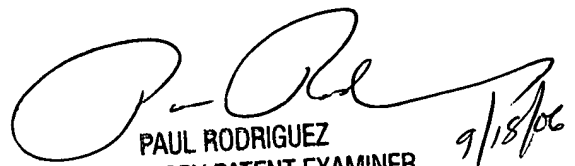
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mr. Tom Stevens whose telephone number is 571-272-3715, Monday-Friday (8:00 am- 4:30 pm EST).

If attempts to reach the examiner by telephone are unsuccessful, please contact examiner's supervisor Mr. Paul Rodriguez 571-272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Answers to questions regarding access to the Private PAIR system, contact the Electronic Business Center (EBC) (toll-free (866-217-9197)).

August 22, 2006

TS


PAUL RODRIGUEZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100
9/18/06